REMARKS

FORMAL MATTERS:

Claims 1, 3-10, and 15-16 are pending after entry of the amendments set forth herein.

Claims 11-14 are canceled as being directed to withdrawn subject matter.

Claims 1, 5, 8, 15, and 16 has been amended. Support for this amendment can be found in the claims as originally filed throughout the specification at, for example, Figure 1.

No new matter has been added.

WITHDRAWN REJECTIONS

Applicants express gratitude in the Examiner's indication that previous rejections not reiterated in the present Office Action have been withdrawn.

REJECTIONS UNDER §112, ¶2

Claims 1, 3-10, 15, and 16 have been rejected under 35 U.S.C. §112, second paragraph, for allegedly being incomplete for omitting essential structural cooperative relationships of elements. In view of the amendments to the claims, this rejection is respectfully traversed.

Nucleic Acid Tags

In particular, the Office Action asserts that Claims 1, 3-10, 15, and 16 are incomplete for omitting an essential element with respect to the "relationship among the claimed components, i.e., a plurality of first hybridization sequences, a mixture of different hybridization sequences, and chemical reaction site" (office Action, page 3).

In the spirit of providing clarity to the claims and without conceding as to the correctness of the rejection, Claim 1 has been amended to recite "wherein each nucleic acid tags comprises a first hybridization sequence linked to a second hybridization sequence, which said second hybridization sequence is linked to a chemical reaction site". Support for the amendment can be found in the specification at, for example, Figure 1.

Accordingly, this rejection may be withdrawn.

Immobilized Sequences

The Office Action has also asserts that Claims 1, 3-10, 15, and 16 are incomplete for omitting the structural connection with respect to the "relationship among the first immobilized nucleotide sequences, the second immobilized nucleotide sequences, and the reagent-specific compound intermediate" (Office Action, page 4).

Applicants respectfully submit that the rejection is in error. The invention does not require structural connection between the first immobilized nucleotide sequences, the second immobilized nucleotide sequences, and the reagent-specific compound intermediate, as asserted in the Office Action.

The first and second immobilized nucleic acid sequences are used in the claimed method to facilitate formation of first and second groups of subsets of nucleic acid tags during sequential split and recombine steps of the synthesis method. Therefore, there is no structural connection between the first immobilized nucleotide sequences and the second immobilized nucleotide sequences.

With respect to the reagent-specific compound intermediate, following the first synthesis step, the chemical reaction site in each nucleic acid tag is converted to a reagent-specific compound intermediate. Therefore, there is no structural connection between the first or second immobilized nucleotide sequences and the reagent-specific compound intermediate. However, Claim 1 has been amended to clarify the relationship between the chemical reaction site of the nucleic acid tag and the reagent-specific compound intermediate.

As such, Applicants respectfully request that this rejection be withdrawn.

REJECTIONS UNDER §102

Claims 1, 3-5, and 15 have been rejected under 35 U.S.C. § 102(b) for allegedly being anticipated by Dehlinger et al. (U.S. Patent No. 5,723,320). This rejection is respectfully traversed.

The cited reference discloses a method of producing a nucleic acid array on a surface. The disclosed method includes (1) synthesizing oligonucleotide probes on four-sides of a solid support, (2)

hybridizing sets of gene-probe templates to the immobilized oligonucleotide probes on the solid support, (3) **extending**, by strand directed polymerization, **the immobilized oligonucleotide probes on the solid support** based on the hybridized gene-probe templates; (4) denaturing the robes, and repeating the steps. As such, the disclosed method of the cited reference pertains to **extension of the immobilized oligonucleotide probes by strand directed polymerization**.

In contrast, the claims of the present invention are directed to a method of tag directed synthesis **on the chemical reaction site of the nucleic acid tag not the immobilized nucleic acid sequence**. In the spirit of expediting prosecution and without conceding to the correctness of the rejection, Claim 1 has been amended to recite "to convert the chemical reaction site in each tag to a reagent-specific compound intermediate on the nucleic acid tag in each subset".

It is well established that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987), cert. denied, 481 U.S. 1052 (1987). See also, Scripps Clinic and Research Foundation v. Genentech, Inc., 18 USPQ 2d 1001 (Fed. Cir. 1991).

Accordingly, since Dehlinger et al., fails to teach each and every element of the claims, the cited reference fails to anticipate Claims 1, 3-5, and 15. Therefore, Applicants respectfully request that this rejection be withdrawn.

CONCLUSION

Applicant submits that all of the claims are in condition for allowance, which action is requested. If the Examiner finds that a telephone conference would expedite the prosecution of this application, please telephone the undersigned at the number provided.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-0815, order number STAN-390.

Respectfully submitted,
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Date: Sept. 9, 2005

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